tation of ancestral resistant ova into a susceptible host, which acquired susceptibility has been propagated with little or no change for at least ten nonfostered generations.

Conservative biologists, firm believers in classical Mendelian theory, have been inclined to interpret the Bar Harbor experiments as evidence of the existence of a milk-borne (or placentally transferred) carcinogenic virus. That this interpretation is correct is currently alleged by Bittner,[1] who was able to demonstrate the carcinogenic "influence" in filtrates from lyophilized murine breast cancer. Ten young mice of a cancer-resistant stock were each allowed to drink about two cubic centimeters of this filtrate. Six of them developed apparently spontaneous breast cancer by the end of 12.4 months. None of the brother and sister controls not given the lyophilized filtrate have thus far developed breast tumors.

There is nothing inherently improbable in Bittner's conclusion, that so-called spontaneous breast cancer in certain intensively inbred strains of mice is, in reality, a milk-borne virus infection. It is well known that several presumptive cancers in lower animals are virus infections. It is also known that the causative agent in breast infections is often given off in the milk. Certain ultramicroscopic viruses are known to be capable of absorption from the gastro-intestinal tract, and of subsequently localizing in other tissues. Thus localized, murine viruses may remain latent, manifesting their presence only after supplementary tissue injury.

Proof of the virus nature of Bittner's milk-borne carcinogen, however, is thus far based solely on its resistance to the lyophilized filtrate technique. The evidence, therefore, is far from being complete. For the present, Bittner's conclusion must be regarded as little more than a plausible working hypothesis, a promising basis for future experimental study.

Mice are notoriously susceptible to subpathogenic viruses, which cannot be transferred to higher animal species. Hence, there is no reason to suspect that Bittner's work is at all applicable to clinical medicine or to the dairy industry. Until unpasteurized mouse milk becomes a product of commercial interest, his work is of purely theoretic interest. Tests of human and dairy milks by the Bittner technique, of the effects of pasteurization on his hypothetical murine virus, and of its possible antigenicity for rabbits and other higher animals, are now in progress.

Law's[7] latest discovery, that in certain inbred mouse strains repeated injections of 2.5 milligrams dose of sodium desoxycholate (total dose 10 milligrams) during infancy will lead to a significant (threefold) increase in the incidence of spontaneous pulmonary tumors in late adult life, suggests a quite different interpretation of Bittner's experimental evidence. Whether or not similar bile derivatives are present in murine carcinophilic milk, however, and whether or not, if present, they are equally effective on oral administration, have not yet been determined.

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MYOSITIS

There is a great deal of controversy concerning the clinical importance of myositis. On the continent most physicians are wont to feel that myositis is a disease which is frequently encountered in practice. In this country there are many who contend that this disease is extremely rare and that it is present only in such definite affections as trichinosis. The latter group of physicians are of the opinion that muscular pains in the back and in the extremities are caused by muscle spasm secondary to local joint disease. They believe that referred pain, also originating in joint lesions, account for many muscle pains. The American school of thought has much in its favor since the pathologic changes of myositis have rarely been described.

It is difficult to believe that the skeletal muscular system, which comprises 40 per cent of the human body weight, should be so resistant to disease processes. Of late, evidence has been accumulating in this country to substantiate the frequency of myositis. Geschickter [1] has described the lesion pathologically. Bodanski [2] found a reversal of the normal creatin urinary ratio in a case of diffuse myositis. Steindler [3] has described his novocain test for the differentiation of superficial pain (presumably caused by myositis) from the deeper joint pain of arthritis. A simpler method of differentiation is that described by Lewis,[4] and others. The painful muscular area is palpated with one finger. If tenderness is elicited, one presumes the origin of the pain to be local, in the muscles. If no tenderness is obtained, one assumes the pain to be radiating from some other source, probably a diseased joint. Pain arising from muscle spasm may be eliminated by examination of the joint in as relaxed position as possible. Recumbency for a few moments may accomplish such relaxation.

Sufficient evidence of changes in skeletal muscle, significant of myositis, is still lacking. If such changes could be induced in animals, it should prove of value in clarifying this problem. The author has been investigating the creatin and phosphate content of chilled as compared to normal rabbit skeletal muscle. Unfortunately, no conclusive data were obtained.

At the present time myositis and fibrositis should be considered as a diagnostic possibility when examining a patient with a painful back or extremity. Clinical and laboratory evidence, which gave credence to the diagnosis of myositis, are increasing.

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